

## Some Arctic Grasses.

F. LAMSON SCRIBNER.

(WITH PLATE III.)

*DESCHAMPSIA BREVIFOLIA* R. Br. in Parr. 1st Voy. Suppl. p. 291. (1823).—The finding of what we believe to be the typical form of Robert Brown's *D. brevifolia*, by Lieut. A. W. Greely in 1882, near Ft. Conger, Grinnell Land, latitude  $81^{\circ} 44'$ , leads us to restore to its specific rank this truly Arctic grass that has been classed by many recent authors as only a variety or form of *D. cæspitosa*. We do not find it represented in any of the numerous Rocky Mountain collections which we have examined, and the only approach to it among our Arctic collections is a specimen from Schumagin Island, Alaska, collected by M. W. Harrington in 1871-2. The Alaskan plant is about three times the size of the one from Grinnell Land, but in other respects there is no essential difference. The figure we have made is drawn from one of Lieut. Greely's specimens and shows the habit of the plant, natural size, with enlarged illustrations of one of the spikelets.

The following is copied from Brown's description :

Gramen 3-5-unciale, glabrum. Culmi simplicis, erecti, foliati. Folia inferiora involuto-subulata, stricta, uncialis—sesquiuncialis; vaginis strictis, folio brevioribus, ipsa basi integra; ligula lanceolata; supremum brevissimum, vagina elongata, laxiuscula, ligula brevior. Panicula coarctata, lanceolata vel oblonga, fusco-purpurascens, scariosa, ramis semiverticillatis. Locustæ bifloræ raro trifloræ, semper cum rudimento pedicelliformi flosculi alterius. Gluma subæquivalvis, mutica, acuta, valvulis lanceolatis, concavis acutissimis, scariosis disco purpurascenti, limbo pallido, uninerviis, locusta paulo brevioribus. Perianthia subuniformia scarioso-membranacea separatim solubilia, inferius sessile: valvula inferior ipsa basi barbata pilis brevibus strictis, albis, cæterum glabra, concava subquinqnervis, nervis omnibus lævibus, lateralibus obsoletis, apice eroso multidentato, dorso sæpius infra medium aristata; arista setacea, recta, denticulata, valvulam ipsam vix vel paulo superanti; superiore longitudine inferioris, angustior, dinervis, apice bidentato, quandoque semifido.

*PHIPPSIA ALGIDA* R. Br.—Mr. H. N. Patterson, who is well-known both as a collector and a compiler of useful and neatly printed check-lists of plants, has been spending the season in the Rocky Mountains, gathering in botanical treasures, and among his interesting finds is *Phippsia algida*, a curious little grass, allied to *Coleanthus* and *Sporobolus*, that has not before been discovered south of Alaska. Mr. Patterson collected it in wet, gravelly places about Chicago Lake, Georgetown, Colorado. It may not be so rare within our limits as now appears for its low, moss-like growth and aquatic habits render it very likely to es-



cape notice. Our figure is taken from Trinius, *Icones*, and shows very well both the habit of the plant, excepting that it is densely cespitose, and the minute characters of the spikelets. The outer or empty glumes are very small and the lower one is sometimes wholly wanting.

AGROPYRUM VIOLACEUM, Hornem.—This grass was collected at Ft. Conger, Grinnell Land, by Lieut. Greely and Dr. D. L. Brainard. The specimens are fine, 8–15 cm. high, with short spikes and densely pubescent glumes, a character observed in Greenland specimens collected by Thomas M. Fries. The figure illustrates one of the specimens nearly natural size.

In 1883 Mr. Wm. M. Canby collected at the Upper Marias Pass, Montana, alt. 8,000 ft., specimens of this *Agropyrum* in which the leaves are much narrower than in the Scandinavian plant and pubescent, as are also the floral glumes. The outer glumes are smooth. All the glumes are remarkably broad with very short awns.

EXPLANATION OF PLATE III.—A, *Deschampsia brevifolia* R. Br.; entire plant, nat. size and spikelet enlarged. B, *Phippsia algida* R. Br.; entire plants and details of flowers. C, *Agropyrum violaceum*, Hornem.; entire plant, nat. size and spikelets enlarged.

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## The Life and Labors of Linnæus.

A. P. MORGAN.

Previous to the time of Linnæus, the science of botany was in a chaotic state. Discoveries there had been, it is true, and the science had made much progress; each discoverer seemed disposed to attach most importance to what he found out himself and proceeded to establish a system of classification upon the particular feature which he had investigated. The method of Cæsalpinus was founded on the fruit, that of Rivinus on the number of petals of the flower, that of Tournefort on the figure of the same. All were artificial because they took into consideration only one or a few features of the plants.

The problem of the great botanists of all times has been to find a natural system, one in which every plant will be shown in its perfect relation to all other plants. With this problem all the distinguished botanists of Linnæus' time were busily engaged. Haller at Göttingen labored doubtfully, sometimes despairingly, over his *Prodromus* of a German Flora and Enumeration of the Plants of Switzerland. Dillenius at Oxford improved Ray's *Synopsis* and labored faithfully upon mosses and other plants.